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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,239	06/21/2000	Norman D. Geddes	ASI0001-US	7455
27510	7590	09/26/2005	EXAMINER	
KILPATRICK STOCKTON LLP 607 14TH STREET, N.W. WASHINGTON, DC 20005			MEINECKE DIAZ, SUSANNA M	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/598,239

Applicant(s)

GEDDES ET AL.

Examiner

Susanna M. Diaz

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to Applicant's Pre-Appeal Conference Request filed September 12, 2005, prosecution is hereby reopened. However, a new examiner has taken over the case. The previously pending art rejection is withdrawn; however, a requirement for restriction is set forth below.

Election/Restrictions

2. A review of the specification reveals numerous embodiments, some of which are similar permutations of one another. Figure 3 depicts the various modules that may be utilized with the inference engine; however, certain embodiments do not require use of all modules (i.e., Planner 302, Intent Interpreter 303, Information Manager 304, Script Performer 305, Knowledge Base 306, Situation Assessor 307). It is not completely clear to the Examiner which details of each permutation (or embodiment) are interchangeable; therefore, recognizing that the claims as originally filed are also part of the disclosure, the Examiner will attempt to line up the different species in light of the claimed permutations in combination with the disclosed ones in the specification itself. If Applicant feels that some of the following species may be implemented as one embodiment, the Applicant is respectfully requested to cite support justifying regrouping of certain species with the elected species.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: Directed toward the embodiment disclosed on page 20, lines 5-16 and page 31, line 7 through page 32, line 19 of the specification, wherein the knowledge base includes one or more plan-goal graphs. Claims 2 and 21 are directed toward Species I subject matter. (The plan and goal graphs are also described with an embodiment that utilizes scripts with an intent interpreter in conjunction with a plan and goal graph (PGG). See Species IV and V below. If Applicant desires to limit Species I to the specifics of Species IV or V, then Applicant may elect Species IV or V and claims 2 and 21 will be examined with the selected species.)

Species II: Directed toward the embodiment disclosed on page 21, lines 9-18 and page 26, lines 17-19 of the specification in which commitment levels are assessed and concept graphs are used according to life cycle states of one or more plan instances. Claims 3-8, 22, and 24 are directed toward Species II subject matter; however, it should be noted that claims 3, 22, and 24 are generic to both Species II and III.

Species III: Directed toward the embodiment in which the knowledge base includes one or more concept graphs including a non-monotonic model of economic benefit provided by the plan instances created by the inference engine, which is not fully disclosed in the specification (particular any discussion regarding "a non-monotonic model of economic benefit"). Claims 3, 5, 22, and 24 are directed toward Species III subject matter; however, it should be noted that claims 3, 22, and 24 are generic to both Species II and III.

Species IV: Directed toward the embodiment disclosed on page 22, lines 14-16 of the specification, wherein the knowledge base includes one or more scripts comprising a sequence of partially-specified actions (i.e., "primitive actions"). The "partially-specified actions" alternative of claim 9 is directed toward Species IV subject matter. In general, the scripts are used with the embodiment described on page 22, line 8 through page 23, line 7 of the specification, which is directed toward use of an intent interpreter with a plan and goal graph (PGG); therefore, claim 10 would be examined with Species IV as well. (As discussed in Species I above, if Species IV is elected, then Applicant has the option of grouping claims 2 and 21 with Species IV as well.)

Species V: Directed toward the embodiment disclosed on page 22, lines 16-17 of the specification, wherein the knowledge base includes one or more scripts comprising a sequence of fully-specified actions (i.e., "non-primitive actions"). The "fully-specified actions" alternative of claim 9 is directed toward Species V subject matter. In general, the scripts are used with the embodiment described on page 22, line 8 through page 23, line 7 of the specification, which is directed toward use of an intent interpreter with a plan and goal graph (PGG); therefore, claim 10 would be examined with Species V as well. (As discussed in Species I above, if Species V is elected, then Applicant has the option of grouping claims 2 and 21 with Species V as well.)

Species VI: Directed toward the embodiment disclosed on page 26, line 20 through page 27, line 5 of the specification, where the inference engine includes a non-monotonic truth maintenance system (which is based on a belief in a concept). Claims 11 and 20 are directed toward Species VI subject matter.

Species VII: Directed toward the embodiment disclosed on page 27, lines 6-20 and page 29, lines 1-3, where the knowledge base includes tables of data, each table storing zero or more data records, and a protective data security mechanism. Claims 12-15 are directed toward Species VII subject matter.

Species VIII: Directed toward the embodiment disclosed on page 30, line 16 through page 31, line 6, which describes the detection of conflicts among agents using plan and goal conflict detection (there is no use of concept graphs with the conflict detection disclosed, thereby raising issues of support for claims 25 and 26 in combination with claim 24). Claims 25 and 26 are directed toward Species VIII subject matter.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 16-19, and 23 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. A telephone call was not made to Applicant because the restriction requirement is deemed to be complex.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 3623

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 10 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Susanna M. Diaz
Primary Examiner
Art Unit 3623

September 25, 2005